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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/105,705	06/26/1998	THOMAS JOKERST	4172-4913	5902

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EXAMINER

BETTENDORF, JUSTIN P

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 10/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/105,705

Applicant(s)

JOKERST, THOMAS

Examiner

Justin P. Bettendorf

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. The indicated allowability of claims 1-12 and 18-22 is withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.
2. The amendment of 9/19/02 has been entered and the final rejection of paper no. 9 has been withdrawn in light of the new rejections that follow.

Claim Objections

1. Claims 2, 3, and 12 are objected to because of the following informalities: Claim 2 recites "solid" which has been deleted from claim 1 (the claim from which claim 2 depends). Consistent claim language should be followed. Also, claim 3 recites "the ferrite form is constructed of ferromagnetic material" which is redundant because ferrite is by definition ferrimagnetic material (it should be noted that ferromagnetic materials include metals such as Fe, Co, and Ni whereas ferrimagnetic materials are ferrites). Claim 12 recites "ground block source" which could cause confusion because the previous lines recite "terminal coupler"; therefore, the examiner suggests changing "ground block source" to --ground source--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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4. The phrase "or similar" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or similar"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2, 3, 8, 13, 18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno et al. JP 07-297035.

The Mizuno et al. reference discloses in figure 2 a ferrite form 20 (i.e. a ferrimagnetic material) with ground conductor 22 wound therearound. Ground conductor 22 is connected at one end to the outer shield 12 of the coaxial cable C1 (see figure 1) with a "terminal coupler" shown as little circles in figure 2. Figure 2 also schematically shows insulation on wire 22. The ground conductor 22 is inherently capable of functioning as ground and attenuates RF interference (i.e. high frequency noise - see abstract). It should be noted that claim 2 has been interpreted to include any conductor (not limited to "solid") as recited in claim 1.

7. Claims 13, 16, 18, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Aceves et al. United States Patent No. 2,002,844.

The Aceves et al. reference discloses in figure 2 a coaxial cable with outer conductor 4 (see figure 1) that is connected between two sites (i.e. an antenna and radio receiver). An RF choke 11 is connected between the outer conductor 4 and ground shown in the figure 2 (see page

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2, lines 41-43. With respect to claim 16, the Aceves et al. reference teaches that the coil 11 attenuates frequencies of greater than 3 MHz (i.e. 100 m) {page 2, right-hand col., lines 24-37}.

Claim Rejections - 35 USC § 103

8. Claims 1-6, 8, 9, 11, 14, 15, 17, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aceves et al.

As noted above, the Aceves et al. reference discloses a choke 11 {that may be formed of a toroid or any convenient form (page 2, lines 57-64)} between the outer conductor 4 and the ground at 7 but does not disclose a ferrite form and solid conductor of at least 14 gauge.

Nevertheless, ferrite forms in the shape of toroids with wires wrapped around or beads that encompass the wire are conventional forms used in forming inductors. Moreover, insulated wire is conventionally used in order to prevent short-circuiting between the windings in a wound toroid. Additionally, large diameter (e.g. 14 gauge), solid copper wire is conventionally used in order to handle a high current.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed the RF choke coil 11 out of insulated wire wound around a ferrite core (e.g. the well-known type 77) or with a conventional ferrite bead because, as the reference is silent on the exact specifics of the choke coil 11, any art-recognized equivalent core/coil would have been usable therewith such as the well known type 77 ferrite. Additionally, the use of solid, copper wire having a large diameter (e.g. 14 gauge) would have been obvious based on the current requirements of the device. Also, terminal couplers would have been required to make the connections.

9. Claims 4, 5, 6, 9-11, 14, 15, 16, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al.

As noted above, the Mizuno et al. reference teaches using insulated wire to form a toroid but does not disclose the frequency of attenuation (at least in English) or the parameters of the choke coil.

Nevertheless, as noted above, beads are conventionally used when the desired number of turns is low. Additionally, the use of copper wire with a large diameter is conventionally based on the desired current handling capabilities. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted a bead in place of the toroid in the device of Mizuno et al. because such a modification would have been considered a mere substitution of art-recognized equivalent ferrite forms. Also, the use of solid copper wire with a large gauge would have been obvious based on the current requirements. Moreover, the frequency of attenuation is conventionally based on the frequency of operation and therefore, an obvious optimization involving only routine skill in the art. The use of a "ground block" to form the ground connection as recited in claim 10 would have been obvious because, as the reference is silent on exactly how the ground connection is made, any art-recognized equivalent means would have been usable such as a "ground block".

10. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Viewsonics "Ground Blocks" cited by the applicant in view of Warisaya JP 4-154203.

Figures 5 and 6 show a cable network with a terminal coupler and ground block (see figure 1) comprising two coaxial connectors and a ground wire lead that is connected to ground but does not show the choke.

As would have been well known in the art, there is a problem with impulse noise on ground shields. Warisaya teaches that addition of a choke coil core 5a to the ground line removes unwanted high frequency noise from the ground circuit.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have added a noise attenuating choke to the ground circuit of the Viewsonics system between the terminal ground block and the ground reference as taught by Warisaya because such a modification would have advantageously removed unwanted ground noise. Additionally, the use of beads or wire-wrapped around a ferrite form (e.g. type 77) using insulated copper wire having a large gauge (e.g. 14 AWG) would have been obvious because, as the references are silent on the specifics of the choke, any art-recognized equivalent chokes would have been usable based on the desired frequency of attenuation and current requirements. Also, the use of a housing for the choke would have been obvious to protect the choke from the environment as would have been well known.

Response to Arguments

11. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

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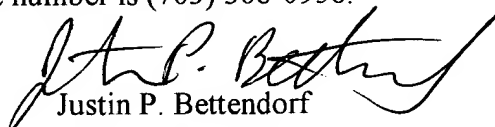
Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. King et al. United States Patent No. 4,145,674 discloses adding a ground choke in a circuit to remove unwanted noise.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Justin P. Bettendorf
Primary Examiner
Art Unit 2817

jpb
September 30, 2002